Base Year: 1999 By: M. Nguyen

SOURCE INVENTORY

CATEGORY # 66

FILLING STATIONS - SPILLAGE

1999 EMISSIONS

Introduction

Gasoline spill occurs during filling such as prefill and postfill nozzle drip and overflow from the vehicle's fuel tank at service stations. The amount of spillage loss can depend on the service station business characteristics and nozzle types (conventional nozzle or vapor recovery nozzle).

Methodology

This category accounts for evaporative emissions resulting from spillage at vehicle filling stations. The estimates of gasoline consumption in the Bay Area were provided by Transportation Planning Support Information System (TPSIS), Caltrans. These estimates were made by adjustments of Gasoline Dispensing Facility sales, total taxable gasoline sales (exclude aviation) from CA Board of Equalization, population, number of registered vehicles, and the number of driver' s licensee. The estimated throughput is contained in the Data section. Emission factor was taken from AP-42, Section 4.4. The total emissions are determined by multiplying the emission factor and the throughput.

Monthly Variation

Monthly variation of emissions was based on the monthly California taxable sales data from the Board of Equalization.

County Distribution

Emissions distributed into the nine counties were based on Caltrans Transportation Planning Support Information System's breakdown.

TRENDS

History

Historical emissions were based on past years Bay Area gasoline consumption. Prior to 1990 Base Year, taxable gasoline sales for California obtained from the Board of Equalization were assumed to distribute to all gasoline filling stations in the California.

ARB estimated that Bay Area consumed 20.01% of this state total. The emissions for this category were determined according to this estimated throughput.

Growth

Gasoline consumption in 1990 reached record levels. However, the gasoline consumption decreased slightly during the economic recession in 1991 - 1993. Projections are based on future gasoline consumption in the Bay Area.

Control

Emissions were reduced due to the improvement of vapor recovery nozzle in Phase II Gasoline Dispensing Facilities. Regulation 8 rule 7 does not specify emission reduction for this category. However, the improvement of the vapor recovery nozzles reduces spillage at vehicle filling services stations.